

WHAT IS CLAIMED IS:

1. A cloned and isolated nucleic acid encoding a *Bacillus anthracis* sasp-B protein having greater than 90% homology to the *Bacillus cereus* sasp-B DNA.
2. The nucleic acid of claim 1 having the nucleic acid sequence of SEQ ID NO: 87.
3. The nucleic acid of claim 1, further comprising the full length coding sequence for said sasp-B protein.
4. The nucleic acid of claim 1 having the nucleic acid sequence of SEQ ID NO: 107.
5. The nucleic acid of claim 1, wherein the nucleic acid encodes SEQ ID NO: 92.
6. An antibody that selectively binds to the *Bacillus anthracis* sasp-B protein.
7. The antibody of claim 6, wherein the *Bacillus anthracis* sasp-B protein has an amino acid sequence of SEQ ID NO: 92.
8. The antibody of claim 6, wherein the antibody binds to the epitope encoded by TAGCATT.
9. The antibody of claim 6, wherein said antibody is a monoclonal antibody.
10. A nucleic acid primer that hybridizes specifically to the sasp-B DNA of *Bacillus anthracis*.
11. A nucleic acid probe that hybridizes to the sequence 5' -TAG CAT T - 3'' or the complimentary strand thereof.
12. A method for the detection of *Bacillus anthracis* (B.a.) in a sample, comprising the steps of:
 - (a) incubating the sample with amplification primers that hybridize to the *Bacillus anthracis* sasp-B gene;

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- 5 (b) amplifying a target sequence between the hybridized primers; and
6 (c) detecting the presence of amplified *Bacillus anthracis* sasp-B gene
7 sequences.

1 13. The method of claim 12 comprising the steps of detecting the presence
2 of an insert having SEQ ID NO: 107.

1 14. The method of claim 12, wherein the method of amplifying the sasp-B
2 gene comprises the use of the polymerase chain reaction.

1 15. The method of claim 12, wherein the sasp-B gene primers hybridize to
2 the forward and reverse strands of sequence of SEQ ID NO: 87.

1 16. The method of claim 12, wherein said detecting step comprises the step
2 of hybridizing the amplified fragment to a probe specific for the *Bacillus anthracis* sasp-B
3 gene.

1 17. A method for detecting the presence of *Bacillus anthracis* in a sample
2 comprising the step of:

- 3 (a) incubating said sample with an antibody to the *Bacillus anthracis* sasp-
4 B protein; and
5 (b) detecting the binding of said antibody to *Bacillus anthracis* sasp-B
6 protein in the sample.

1 18. The method of claim 17, wherein said antibody is a monoclonal
2 antibody.